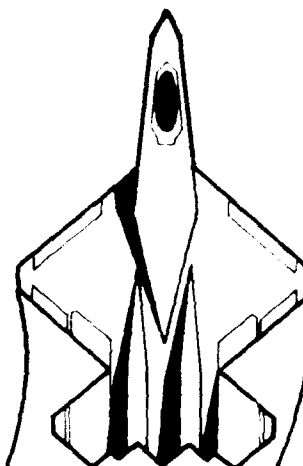


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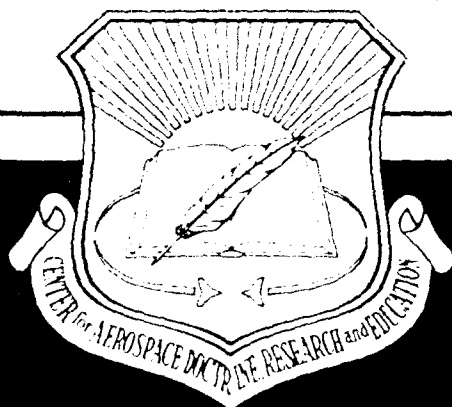


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THE FUTURE OF THE AIR FORCE

The Impact of Decreased Department of Defense Spending on Employment in the United States

R. THEODORE ROTH, Lt Col, USAF

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by

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United States Air Force Academy

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Foreword

The stunning changes in the complexion of international politics that began late in the decade of the 1980s and continue today will profoundly affect the American military establishment as a whole, and the US Air Force in particular. Decisions about the future course of the military will be made in the early part of the 1990s which will essentially determine the course of the US Air Force well into the next century. Decisions of such importance require thoughtful consideration of all points of view.

This report is one in a special series of CADRE Papers which address many of the issues that decision makers must consider when undertaking such momentous decisions. The list of subjects addressed in this special series is by no means exhaustive, and the treatment of each subject is certainly not definitive. However, the Papers do treat topics of considerable importance to the future of the US Air Force, treat them with care and originality, and provide valuable insights.

We believe this special series of CADRE Papers can be of considerable value to policymakers at all levels as they plan for the US Air Force and its role in the so-called postcontainment environment.



DENNIS M. DREW, Col, USAF
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About the Author



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Executive Summary

The combined pressures of reduced East-West tensions and large budget deficits in the United States have led to the enactment of reduced defense budgets. Future reductions in spending could be 25 percent less in real terms from fiscal year (FY) 1990 levels. These decreases will affect employment of active duty military personnel, Department of Defense (DOD) civilians, and private-sector defense industries.

If the reductions in force structure take place at a controlled rate, the disruption of active duty forces and DOD civilians should be handled by attrition and reduced accessions. The backlog of authorizations and foreign sales will slow any industrial downturn in the defense sector. The rate and magnitude of the defense spending decreases are smaller than in previous postwar cutbacks, and much of the decrease has already taken place since the peak of authorizations in fiscal year 1985. Although certain individuals will be affected by reductions in defense spending, the overall impact upon the economy will be similar to other structural unemployment that occurs as the structure of production in our economy changes. Current job training and economic recovery legislation are sufficient to handle this decrease in spending and transfer of individuals to the private sector.

This analysis concludes that these cutbacks by themselves will not significantly affect the US economy in the aggregate, although certain localities, occupations, and industries may encounter short-term difficulties with increased unemployment.

Chapter 1

Introduction

FOLLOWING the many political changes which took place in Eastern Europe in 1989 and 1990, the feeling in the United States was that the cold war was finally over. Those changes made it much less likely that the Soviets could launch an attack through the Warsaw Pact countries. This reduction in tensions between the United States and the Soviet Union led many analysts in this country to initially believe that we could reduce our expenditures on national defense by a significant amount—the so-called peace dividend. By early October 1990, there were many outward signs of the end of the cold war including the reunification of Germany and an agreement to reduce conventional forces on both sides. Even in the presence of Saddam Hussein's aggression in the Middle East, there still appears to be a consensus that the United States can afford to decrease defense spending without increasing security risks to the country.

Budget deficits in the United States will also put heavy pressure on the level of defense expenditures. The fiscal year 1991 budget battles were an indication of the importance of further deficit reduction. The deficit targets established by the Gramm-Rudman-Hollings (G-R-H) legislation would have been very difficult to meet in fiscal year 1991. The legislation called for a deficit limit of \$64 billion in fiscal year 1991. In late 1989, many analysts already knew how difficult this goal would be, so the prospect of DOD reductions came at a perfect time. In fact, the original target may be exceeded by over \$200 billion according to Budget

Director Richard Darman, who has forecast a deficit of \$293 billion for fiscal year 1991.¹ As part of the package to reduce future expenditures and deficits, the budget summit has proposed deeper cuts in defense than were proposed by the administration. With the budget deficit estimated to be at higher levels than when G-R-H was enacted, one can see increased efforts to decrease the defense portion of the budget. In fact, as part of the fiscal year 1991 budget package, the original G-R-H legislation was abandoned. The reduced risk, combined with the budget deficit pressures, will certainly lead to large reductions in defense expenditures over the levels spent in the 1980s.

The combined effect of the more favorable security developments and the budget difficulties has raised questions about the impact of these decreases on the economy of the United States. The initial joy at the peace dividend and possible deficit reduction was soon dampened by claims of increased unemployment in defense industries and their localities, as well as a recognition that DOD would be forced to separate involuntarily the very people it was so happy to have recruited to the all-volunteer force. Constituent politics soon came into play as congressmen who had decried the level of defense spending were suddenly arguing that we must not decrease spending too fast because of the adverse employment and economic impacts.

This paper focuses on the employment impacts of decreased defense spending upon the economy of the United States.

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It would be ideal to address the impact of DOD spending upon all of the macroeconomic variables of concern—growth, inflation, debt, and employment—but time does not permit. This paper first presents a historical view of defense spending, followed by a description of the situation in fiscal year 1990 at the perceived end of the cold war.² The next

segment analyzes the impact of decreased spending (1) at the national, regional, and local levels; (2) by employment group; and (3) by occupation and industry groups. The final section is a description of available economic assistance legislation and the author's perceptions of the political environment.

Notes

1. Tom Raum, "Despite Fiscal Surgery, Red Ink to Gush in 1991," *Gazette Telegraph* (Colorado Springs, Colo., 1 October 1990), sec. A, page 3.

2. It is also important to recognize that the primary research for this paper was accomplished before the enactment of the fiscal year 1991 budget. Every attempt has been made to update this paper following the enactment of that legislation. Al-

though some of the numbers and projections could be updated for the fiscal year 1992 budget submission, the basic conclusions of this paper are not affected. Also, the effects of Operation Desert Storm have generally been ignored, although they certainly will have some impact upon future defense spending.

Chapter 2

Historical Perspective and Environment

THERE have long been questions about the impact or burden of defense spending upon the US economy. During the 1980s, many individuals were concerned about the impact of large increases in defense spending upon the economy. Between 1980 and 1985, authorizations for defense spending increased by 55 percent in real terms.¹ Many writers criticized this spending, claiming that defense spending caused increases in inflation, slower growth, lower employment, and increased deficits. Others responded that defense spending did not cause problems in the economy. Now, there is once again a great debate about the impacts of a change in defense spending—this time a sizable decrease. At one extreme, we have great anticipation of the benefits of decreased DOD spending and the associated decreased deficit. Those who claim that these decreases will solve our economic problems of slow growth, productivity declines, slow technological development, and lack of competitiveness probably will be disappointed. At the other extreme are those who fear that decreased spending will lead to an economic slowdown because of the restrictive fiscal policy which these decreases would necessitate (assuming all of the savings go toward deficit reduction). Recent empirical evidence suggests that neither of these extreme outcomes is likely.²

There are four different groups of individuals directly and indirectly employed by the Department of Defense. These groups are (1) active duty personnel, (2) armed forces reserve personnel,

(3) Department of Defense civilians, and (4) employees of defense contractors and those supporting these industries. The employment effects on these groups are analyzed in depth with the exception of reserve forces. Loss of part-time reserve jobs might adversely affect an individual or community, but these effects should be quite small when compared with the impacts on the other three groups. Table 1 provides employment figures for recent years for these different categories of employment. Data Resources, Inc., has estimated that there were 3.4 million employees in the private sector being supported by DOD expenditures. Other estimates are near this figure as well, so we will use it as a baseline figure for analysis.

Several major trends can be seen from this data. For active duty forces, the level of employment in FY 1990 is about the same as in FY 1980, after a peak in FY 1987. There has been talk of reducing the force in the future by 25–50 percent of the fiscal year 1989 figure, which would leave 1.428–1.6 million people on active duty. The likely 25 percent figure will lead to reductions of approximately 100,000 annually through fiscal year 1995.

Civilian employment within the Department of Defense has increased 13.2 percent from FY 1980 to FY 1989. This trend certainly will not continue, although the new equilibrium level will have to await the determination of a new force structure and basing plan. Already in fiscal year 1990, we have seen a freeze on civilian employment within DOD im-

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posed by Secretary of Defense Richard ("Dick") Cheney.

One of the potential force structure changes is to move some active duty forces to the reserves. As can be seen in the following table, much of the force

buildup during the 1980s took place in the reserves with personnel increasing by over 27 percent from FY 1980 to FY 1989. This employment certainly provides stimulus to local economies wherever these units are assigned.

TABLE 1

Military and Civilian Personnel Strength (End Fiscal Year—in Thousands)

Year	Active Component Military	Reserve Component Military	Direct Hire Civilian
1980	2055	869	916
1981	2087	917	940
1982	2113	975	945
1983	2128	1005	980
1984	2138	1046	1000
1985	2151	1006	1043
1986	2169	1130	1027
1987	2174	1150	1049
1988	2138	1158	1010
1989	2131	1171	1037
1990	2077	1155	1018
1991	2040	1152	1013

Defense Industry Employment estimate, 1990: 3.4 million

Source: Department of Defense, *Annual Report to the President and the Congress* (Washington, D.C.: Government Printing Office, 1990), 73.

The place where the most significant employment effects within the economy may occur is in the procurement area. There were approximately 3.4 million people employed in defense industries in early 1990. This number had increased considerably during the eighties and probably peaked in fiscal year 1987 when DOD outlays peaked. Procurement authorizations increased by 112 percent in real terms between 1980 and 1985 and

declined by 26 percent between 1985 and 1990. Outlays increased by 78 percent from 1980 to 1987 and have declined by 9 percent since then.³ Estimates are that defense industry employment has already decreased by 200,000 in 1990.⁴ Cutbacks in procurement of weapon systems and supplies will bring corresponding cutbacks in employment in those affected industries and their locations.

Notes

1. Gordon Adams, Stephen A. Cain, and Conrad P. Schmidt, *The Defense Budget and the Economy: What the Transition Will Look Like* (Washington, D.C.: Defense Budget Project, 1990), 2.

2. David Gold, *The Impact of Defense Spending on Investment, Productivity and Economic Growth*

(Washington, D.C.: Defense Budget Project, 1990), 3.

3. Adams, Cain, and Schmidt, 2.

4. Conrad Peter Schmidt, *The Defense Budget Project*, interview by author, Washington, D.C., 25 September 1990.

Chapter 3

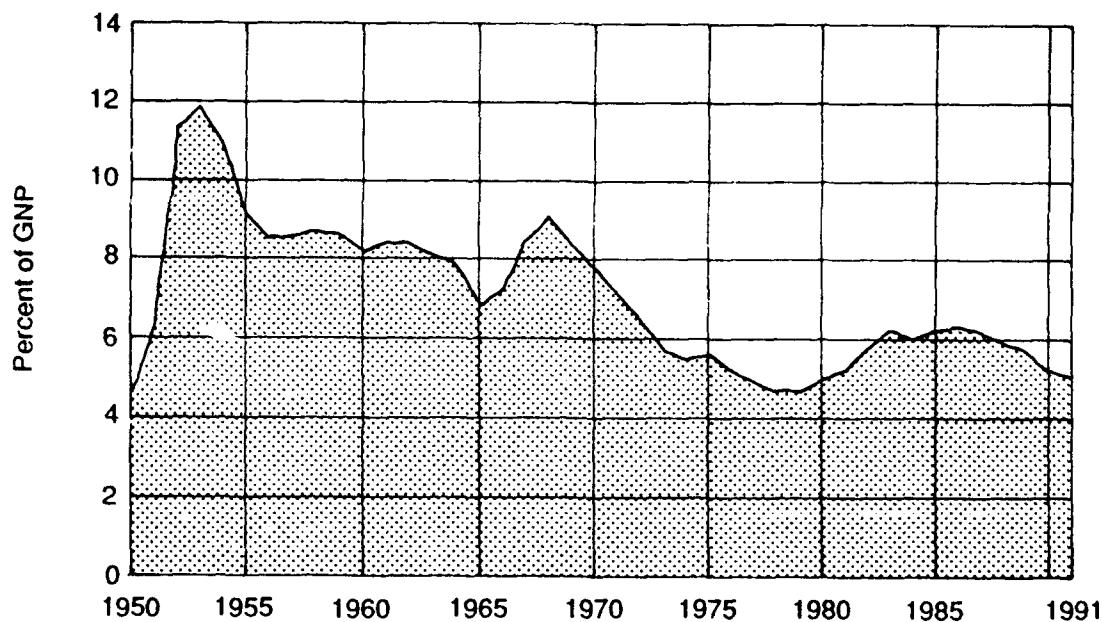
Historical Defense Spending

BEFORE continuing the discussion of the employment impacts of decreased spending, this paper looks at the levels of spending in the postwar period. The term *defense spending* can describe both authorizations and outlays, but it is important to understand the difference and which figure a particular author is using. Authorizations provide for funding in the current year (approximately 65 percent of the current year's budget) as well as into the future. Outlays are monies that are actually spent in that year. Thus, outlays lag behind authorizations and tend to smooth the changes in defense authorizations. Also, DOD figures do not include nuclear weapons which are "hidden" in the Department of Energy budget. Some authors include these expenditures in DOD spending, although DOD tends to ignore these figures to make expenditures appear smaller. It is easy to be confused or influenced by statistical arguments about the levels of defense spending. Consequently, a foundational knowledge of historical spending is beneficial to an understanding of the many arguments presented today concerning the effects of the planned changes in defense spending. These statistical discussions generally use one of three measures of defense spending: (1) the defense outlays to gross national product (GNP) ratio; (2) defense spending in nominal, or current year, dollars; or (3) defense spending in real dollars (all figures in the same year's dollars, i.e., fiscal year 1991 dollars). The third measure eliminates the effects of inflation and allows for more realistic comparisons across years. Again, spend-

ing may be authorizations or outlays. Depending on which measure is used, different points can be justified. Every effort is made in this report to be clear as to whether comparisons are being made with outlays or authorizations. The second measure, nominal spending, is of little value, so it will not be used. Figure 1 indicates the defense outlays to GNP ratio for the postwar years.

The current buildup in procurement authorizations began in 1980 and peaked in fiscal year 1986 as a percentage of the GNP and has been declining ever since. Since we are concerned with a decrease in defense spending, it is important to look at the other three periods of significant decreases in DOD spending—after World War II, after the Korean War, and after the Vietnam War. The magnitudes of these drops as a percentage of the GNP were fairly large.

For the purposes of this paper, all DOD expenditures are converted to fiscal year 1991 dollars. Prior years are inflated to 1991 dollars. Only recent years and projected spending levels are of importance and are shown in table 2. Converting to real dollars will allow meaningful comparisons over time in the absolute levels of DOD spending. If one looks at the postwar peacetime years, the average spending has been approximately \$236 billion in 1991 dollars. National defense authorizations increased by 55 percent in real terms between FY 1980 and FY 1985. Budget authority has since declined by 13 percent to \$302 billion in fiscal year 1990, which is still fairly high by peacetime standards.¹



Source: Department of Defense, *Annual Report to the President and the Congress* (Washington, D.C.: Government Printing Office, 1990), 11.

Figure 1. Defense Outlays as a Share of the Gross National Product

TABLE 2

Historical Outlays and Authorizations

Year	Actual Outlays	Actual Auth	Real Outlays	Real Auth	Outlays as % of GNP
1979	115.0	125.0	195.7	212.7	4.7
1980	132.8	142.6	218.0	234.1	5.0
1981	156.1	178.4	226.5	258.9	5.2
1982	182.9	213.8	247.7	289.6	5.8
1983	205.0	239.5	267.9	312.9	6.2
1984	220.8	258.2	281.5	329.2	6.0
1985	245.4	286.8	300.0	350.7	6.2
1986	265.5	281.4	316.2	335.1	6.3
1987	274.0	279.5	316.0	322.3	6.2
1988	281.9	283.8	314.4	315.5	5.9
1989	294.9	290.8	316.2	311.3	5.7
1990	286.8	291.4	298.7	302.9	5.2
1991	*	288.0	*	288.0	4.9

Source: Department of Defense, *Annual Report to the President and the Congress* (Washington, D.C.: Government Printing Office, 1980-1990).

* Unknown due to Operation Desert Storm.

Notes

1. Gordon Adams, Stephen A. Cain, and Conrad P. Schmidt, *The Defense Budget and the Economy: What the Transition Will Look Like* (Washington, D.C.: Defense Budget Project, 1990), 2-4. The authors include nuclear weapons in the Department

of Energy budget in their figures for national defense spending, as opposed to Department of Defense spending. Consequently, their numbers will not agree completely with those seen in table 2 or any other figures from Department of Defense citations.

Chapter 4

The Current Situation

THERE are several factors about decreased DOD spending which will determine the impact of these changes upon the national economy. These include the magnitude of the reductions and the rate at which they are imposed. In addition, the current state of the economy and its ability to absorb additional workers is extremely important and cannot be overemphasized. Spending reductions would be a form of direct fiscal policy and as such will be restrictive in nature. If the economy is headed for a recession, then these reductions will add to unemployment and the depth of the slowdown.

Prior to the significant changes in the Soviet threat, the Bush administration submitted a five-year budget plan in April 1989. This plan was the last true cold-war budget plan and called for real growth of 0 percent in FY 1990, 1 percent in FY 1991 and FY 1992, and 2 percent in FY 1993 and FY 1994. By the end of 1989 and after the passage of the fiscal year 1990 budget, the events in Eastern Europe and within the Soviet Union convinced many that we could immediately reduce defense spending and receive the benefits of a peace dividend. Since the threat was diminished, any thoughts of real increases disappeared and discussions about defense spending were now in terms of keeping real spending levels constant. This zero real growth (increasing expenditures just enough to keep up with inflation) budget is the baseline for comparisons of future options.

In January 1990, the administration submitted its FY 1991 budget and spend-

ing plans through FY 1995. At the same time, they trimmed \$4.2 billion from planned spending for fiscal year 1990. This budget called for decreases in real spending levels from the April 1989 plan (\$302 billion for FY 1990) of 2.6 percent in FY 1991 and 2 percent annually in FY 1992-FY 1995. These decreases are the smallest suggested for the five-year period. The House Armed Services Committee passed resolutions for a 25-percent real reduction from the FY 1990 benchmark by FY 1995. This was supported by the House Budget Committee and its budget resolution which was passed by the full House. The FY 1991 budget calls for \$288 billion for defense, which is a 5-percent real decrease from the FY 1990 level. This can be compared with the request for \$295.1 billion, which would have provided for a 2.6-percent decrease. These two extremes allow for a range of decreases to be analyzed. The administration's roughly 2-percent annual real decreases are at one extreme and the House's 25-percent total at the other.

As soon as there was talk of reduced defense spending, there were concerns about what impacts there would be on the economy. Several "players" in Washington, D.C., and other locations quickly began their analysis. These players included, but were not limited to, the Congressional Budget Office (CBO), the Congressional Research Service, the Office of Economic Adjustment (OEA) in the Office of the Secretary of Defense, and the Defense Budget Project (DBP) (a private firm). With the data bases and

simulation models available to them, they each analyzed scenarios of decreased spending. These scenarios range from OEA's 10-percent real reduction over five years to CBO's model with a 50-percent real reduction over five years. The Defense Budget Project covers a range of available options which includes the president's plan and the 25-percent House plan for the next five years (table 3).¹ In addition, the DBP split the House proposal into two options, one of which calls for approximately 25-percent reduc-

tions in both personnel and purchases (House I) and a second which has 50 percent smaller personnel cuts and larger purchase reductions (House II). The second option obviously would have smaller reductions in employment for active duty personnel and DOD civilians while having larger impacts upon employment in the private-sector defense industries. Based on what appears to be a realistic rate of decline in defense spending, the 25-percent scenario over five years is used in the following discussion.

TABLE 3

Defense Spending Reductions below Baseline*
by Fiscal Year 1995

Under Three Scenarios

	<i>DOD Total</i>	<i>Military Personnel</i>	<i>Reserve Personnel</i>	<i>Civilian Personnel</i>	<i>DOD Purchases</i>
House I	25.0%	23.6%	24.7%	21.1%	28.6%
House II	25.0	12.6	12.4	12.6	34.4
Bush	11.3	12.6	12.4	12.6	11.6

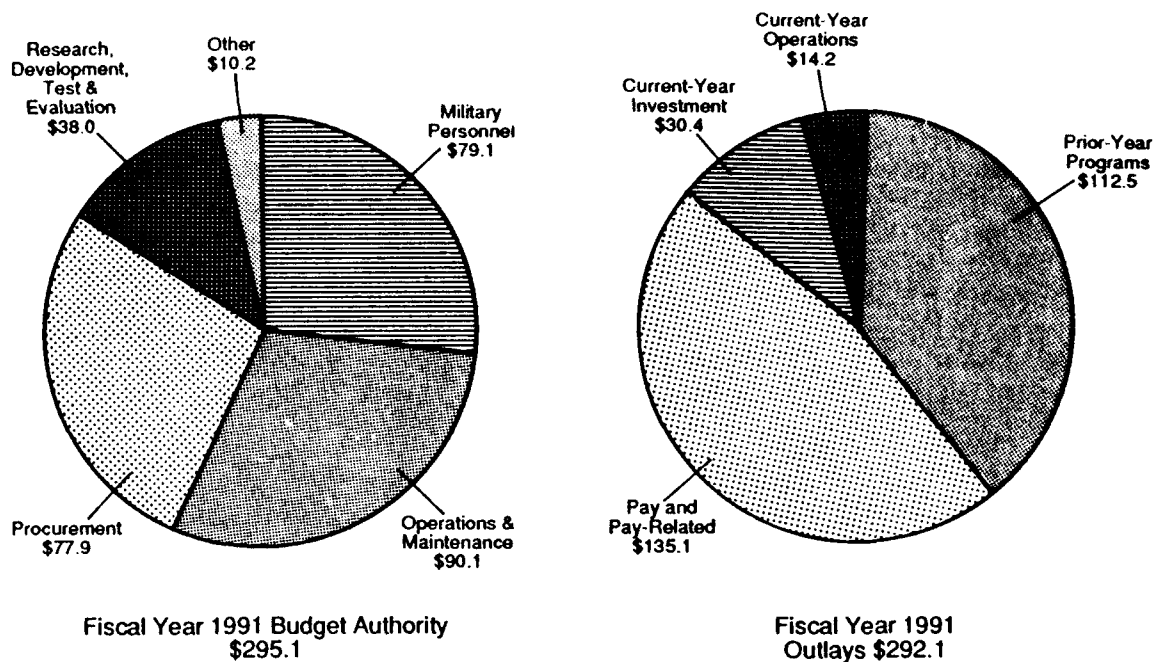
Source: Defense Budget Project, *Potential Impact of Defense Spending Reductions on the U.S. Economy and State Employment* (Washington, D.C.: Government Printing Office, 1990), 9.

* The baseline assumes that spending throughout the period was equal in real terms to fiscal year 1990 spending.

In fact, the peace dividend has been extremely elusive. Savings in fiscal year 1990 were only \$4.2 billion. There are several reasons for this fact, the most significant of which is the makeup of the defense budget. When Congress passes an authorization bill, it is providing for expenditures for up to five years in the procurement account. In any given year, a significant amount of the outlays goes for prior-year commitments. Figure 2 depicts the makeup of the FY 1991 budget submitted by the administration in January 1990 and shows that only 65 percent of FY 1991 outlays actually come from this year's authorizations. All other outlays come from previous years' authorizations, a so-called stern wave. The authority can be divided into four basic types of expenditures: (1) person-

nel, (2) operations and maintenance, (3) procurement, and (4) research, development, testing and evaluation. To achieve any savings in the short run, one must look at the outlays to see what might be decreased in fiscal year 1991. There are reasons why it is difficult to decrease the size of all four areas of the outlay "pie."

In the personnel area, the difficulty stems from the success of the all-volunteer force. Previous reductions in the post-World War II period occurred with the services manned by draftees who were all too eager to move back to the private sector. Today, service members are on active duty because they want to be and they have received implicit promises from the services that if they perform up to standards, they will be able to stay for an entire career. For savings to be realized,



Source: Department of Defense, *Annual Report to the President and the Congress* (Washington, D.C.: Government Printing Office, 1990), 11.

Figure 2. Fiscal Year 1991 Department of Defense Budget (in Billions of Dollars)

the end strengths for the services must be decreased. This can be accomplished through attrition if enough time is permitted. Accessions can be decreased, retirements increased, and incentives provided for early separations. However, large cuts in accessions would cause future force-management difficulties as small-year groups move through their careers. In addition, this policy decreases the number of lowest paid workers and increases the average wage, which moderates any savings potential. If reductions are required which force the services into involuntary separations, then savings may be minimal in the short run as separation pay may cancel any potential savings in decreased active duty forces. Congress has passed legislation which will increase the financial obligations of the government for involuntary separations for both officer and enlisted personnel.

Prior-year program commitments are also difficult to cut. The services are interested in continuing the procurement of weapons systems, many of which are in the midst of production runs. Inefficiencies, increased unit costs, and penalty payments would limit any actual dollar savings over the four years of continued procurement. In addition, many congressmen would fight reductions in procurement of prior programs to preserve jobs in home districts. Consequently, there are few dollars to be squeezed from this segment.

Current-year operations are also difficult to reduce. Defense leaders fear the "hollow force" of the late 1970s if proper training is not accomplished. To further complicate matters, the situation in the Middle East in late 1990 is consuming large amounts of money.

This leaves only current-year procurement. The current-year figure is only a

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little over 10 percent of the total outlays in fiscal year 1991, so without cancellations of large programs (such as the B-2, submarine production, etc.) very few dollars can be saved in the current year.

As stated above, the administration had submitted a budget for \$295.1 billion for fiscal year 1991. That level of spending would allow the Department of Defense to draw down forces without involuntary separations and to complete desired procurement. However, both houses of Congress want defense to be

cut even more. From the discussion above and based on authorizations, it appears that DOD will be spending about \$15 billion less in FY 1991 than it spent in FY 1990. (Desert Storm expenses are not part of the fiscal year 1991 budget authorization and will be handled by supplementary budget enactments.) The stage is now set to analyze the impact of these decreases upon the national economy and the three classes of employment introduced earlier.

Notes

1. Defense Budget Project, *Potential Impact of Defense Spending Reductions on the U.S. Economy*

and *State Employment* (Washington, D.C.: Defense Budget Project, 1990), 6.

Chapter 5

Economic Impact of Decreased Defense Expenditures

ANY analysis of the impacts of reduced defense spending upon the economy is a multidimensional problem. The following discussion first looks at the question by addressing an overall effect at national, state, and local levels. Next, these impacts are analyzed as they affect the three different employment categories listed earlier. Finally, various industry and occupational impacts are discussed.

The National Economy

How large is a \$15-billion decrease in government spending? Returning to our earlier discussion of DOD spending and its relationship with the GNP, one can see in table 4 that the decreases in defense spending which took place in the years after World War II, Korea, and Vietnam were much larger than current reductions. Defense authorizations peaked in FY 1985 and outlays in FY 1987; thus the real defense cuts contemplated in the 1990s are coming on top of reductions in the late 1980s. As a percentage of the GNP, the decreases in defense spending in these earlier periods amounted to 24.8 percent for World War II, 5.3 percent for the Korean War, and 4.6 percent for the Vietnam War in the nine years following the year of peak spending, as shown in table 5. During the years of decreased authorizations planned since the peak of spending in fiscal year 1985, 1.1 percent of the GNP has already been shifted from defense spending to the private sector.

The range of further decreases is another 1.1 percent under the administration's plan and 1.8 percent under the House Budget Committee plan. In the largest reduction case, over one-third of the transition has already taken place. Also, a significant portion of this percentage change is coming from growth in the economy, not from decreased spending. The defense share of the GNP would decrease from 5.4 to 4.7 percent of the GNP by 1995 if defense authorizations kept up with inflation.¹ Thus .7 percent of this transition takes place through economic growth which lessens the burden of moving workers to civilian production. In a macro sense, further cuts should have little effect on the overall economy. Historical evidence indicates that both the magnitude of the reductions and the rate at which they will take place should not be a problem.

There are two factors which will mitigate near-term effects. The first is the difference between authorizations and outlays. As mentioned earlier, authorizations have already decreased by 13 percent while outlays have only decreased by 9 percent. Notice again, that a significant shrinkage has already taken place with little recognition or concern within the economy. Because authorizations are for multiyear periods, outlays will not decrease nearly as fast. An analysis by the Congressional Budget Office shown in table 6 indicates the difference between these two concepts. This table shows the differences between authorizations and

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outlays for three budget scenarios, 4 percent (option I), 7 percent (option II), and 10 percent (option III) real annual reductions. The 4-percent reductions are probably the closest to what actually will

be realized. Notice how small the savings in outlays are for the first few years, despite large cutbacks in authorizations, and that actual savings in outlays will be relatively small for a number of years.

TABLE 4

Impacts of Reductions in Defense Spending (Average Annual Reduction)

	Budget Authority (Billions of 1990 Dollars)	Budget Authority during Period	Defense Share of GNP	Active Duty Military Personnel (Thousands)
Period	Past Reductions			
World War II (1945-48)	121	41	1.5	3,559
Korean War (1952-54)	83	23	1.4*	250*
Vietnam War (1968-73)	17	6	0.7	260
	Possible Future Reductions			
Option I*** (1991-95)	11	4	0.3	77**
Option II*** (1991-95)	18	7	0.4	126**
Option III (1991-95)	25	10	0.5	190**

Sources: Department of Defense budget estimates and CBO projections. Congressional Budget Office, *Summary of the Economic Effects of Reduced Defense Spending* (Washington, D.C.: Government Printing Office, 1990), 5.

* Indicates average annual reduction for the 1953-56 period.

** Assumes an even distribution of reductions among all categories of defense spending.

*** Option I is for real annual decreases of 4 percent, option II is 7 percent, and option III is 10 percent.

TABLE 5

National Defense Spending as a Share of GNP Following the Peak Years of World War II, the Korean and Vietnam Wars, and the Reagan Buildup (Under Various Scenarios)

Base Year	Base Year	Base Yr Plus 4	Base Yr Plus 9	Change		
				Base Yr Through Yr 4	Base Yr Through Yr 9	Yr 4 Through Yr 9
1944	39.2%	3.7%	14.4%	-35.5%	-24.8%	10.7%
1953	14.4	10.3	9.1	-4.1	-5.3	-1.2
1968	9.6	6.9	5.0	-2.7	-4.6	-1.9
1986 (CBO Baseline)	6.5	5.4	4.7	-1.1	-1.8	-0.7
1986 (Bush)	6.5	5.4	4.2	-1.1	-2.3	-1.1
1986 (House)	6.5	5.4	3.5	-1.1	-3.0	-1.8

Sources: Based on data from CBO, OMB, Senator Sam Nunn, and the House Budget Committee. Defense Budget Project, *Potential Impact of Defense Spending Reductions on the U.S. Economy and State Employment* (Washington, D.C.: Defense Budget Project, 1990), 9.

The second factor which may ease the pain on defense industries is the continued sales of US weapons to overseas buyers. In fact, the current Mideast crisis and that region's uncertain future suggest that we will be able to sell large

quantities of hardware to several countries. Recently proposed sales to Saudi Arabia and Israel alone will keep certain production lines open for quite some time.

TABLE 6

Alternative Reductions in Defense Spending
and the Budget Deficit (in Billions of Dollars)

	1991	1992	1993	1994	1995
<u>Reductions in Budget Authority for Defense Only</u>					
Option I	14	27	40	54	68
Option II	22	44	67	90	113
Option III	32	62	93	122	151
<u>Reductions in Outlays for Defense and Related Functions*</u>					
Option I	8	18	31	45	62
Option II	12	30	51	76	102
Option III	17	42	72	104	139

Source: Congressional Budget Office, *Summary of the Economic Effects of Reduced Defense Spending* (Washington, D.C.: Government Printing Office, 1990), 3.

* Assuming defense reductions are used to cut the deficit and thus reduce interest payments.

Note: The options assume annual real reductions in defense budget authority of roughly the following amounts: option I, 4 percent; option II, 7 percent; option III, 10 percent.

State Economies

THE national, state, and local economies are much less dependent on defense spending than they were in earlier periods. Returning to figure 1, which shows the DOD/GNP ratio, the entire economy is less dependent on DOD spending. Diversification at all levels has left the nation, states, and communities

much less susceptible to disruption than in the past. There are many who argue that decreased defense spending will be a benefit to the economy. This argument is discussed later. As one can see in table 7, California is now much less dependent on DOD spending than it was during the Vietnam era. This type of change is typical for the entire country.²

TABLE 7
 Defense Spending Share of Gross State Product (GSP)
 California: 1967-1990

Year	Defense Spending	Defense Share of GSP
1967	35.1	14.3%
1968	37.5	14.6%
1969	37.1	14.0%
1970	34.8	13.2%
1971	30.5	11.5%
1972	28.0	10.0%
1973	25.7	8.8%
1974	25.0	8.4%
1975	24.9	8.2%
1976	24.9	7.8%
1977	25.7	7.6%
1978	24.4	6.8%
1979	24.0	6.4%
1980	24.9	6.6%
1981	25.9	6.9%
1982	29.3	7.9%
1983	34.0	8.7%
1984	39.0	9.3%
1985	42.0	9.4%
1986	44.0	9.5%
1987	46.9	9.6%
1988	48.2	9.4%
1989	46.3	8.8%
1990	44.0	8.1%

Sources: California Commission on State Finance, *Impact of Federal Expenditures on California*, Sacramento: 1988.
 Gordon Adams, Stephen A. Cain, Conrad P. Schmidt, *The Defense Budget and the Economy: What the Transition Will Look Like* (Washington, D.C.: Defense Budget Project, 1990), table 9.

Note: Amounts in constant 1982 dollars.

At the state level, one must look at the levels of employment which are derived from the defense budget. Again, this employment is in the form of active duty personnel, DOD civilians, and defense industry employees and totals approximately 5.6 million people (this total does not include active duty and DOD civilians stationed overseas).³ The impact on each group would depend on the exact distribution of cuts in a particular state and that state's mix of active duty, DOD civilians, and defense industry employees. As stated earlier, states have diversified and are not nearly as dependent on DOD spending as they once might have been. The 5-percent real reduction which takes place in the first year under the House plan, if distributed according

to current outlays, would result in less than 1 percent of any state's employed population being affected.⁴ Table 8 shows the levels of state employment in the defense sector for 1989. (These would be the direct employment effects. There would also be indirect and induced employment losses, the multiplier effect of macroeconomic theory.) Even at the state level, drastic defense cuts would be no more significant than adverse effects in the state's major industries. Cuts would obviously increase the number of people searching for jobs, but just as in the national economy, even those states with relatively large concentrations of defense-related employees would see a small percentage affected.⁵

TABLE 8

State Shares of Defense Purchases and State Defense Employment: 1989

	Defense Share of Total State Purchases	State Defense Dependent Employment* Excluding Guard/Reserve	State Defense Dependent Employment as % of 1989 State Employment	State Defense Industry Employment in 1989	State Defense Industry Employment as % of 1989 State Employment
AL	6.2%	94,785	5.3%	47,874	2.7%
AK	9.6%	38,443	16.3%	10,548	4.5%
AZ	6.4%	85,380	5.3%	47,940	3.0%
AR	4.6%	36,528	3.5%	22,410	2.1%
CA	8.9%	905,018	6.6%	569,336	4.1%
CO	5.7%	102,811	6.4%	48,433	3.0%
CT	8.7%	91,351	5.4%	79,857	4.7%
DE	4.2%	15,303	4.4%	8,854	2.5%
DC	6.4%	52,325	17.5%	20,821	7.0%
FL	5.7%	256,035	4.4%	144,404	2.5%
GA	5.6%	185,628	6.2%	82,429	2.7%
HI	9.6%	87,046	17.0%	23,008	4.5%
ID	3.6%	13,521	2.9%	7,021	1.5%
IL	4.0%	164,509	2.9%	104,576	1.8%
IN	5.6%	91,658	3.3%	70,311	2.6%
IA	3.6%	23,623	1.6%	21,799	1.5%
KS	7.1%	70,894	5.7%	39,080	3.2%
KY	4.6%	83,527	5.1%	30,673	1.9%
LA	5.4%	79,346	4.5%	45,595	2.6%
ME	7.1%	33,585	5.7%	17,254	2.9%
MD	8.7%	169,586	7.0%	89,364	3.7%
MA	7.2%	133,776	4.4%	111,958	3.7%
MI	3.9%	105,221	2.5%	83,433	2.0%
MN	4.6%	52,418	2.3%	47,953	2.1%
MS	8.2%	63,601	5.9%	35,677	3.3%
MO	7.2%	124,969	5.1%	84,688	3.4%
MT	3.8%	11,221	2.9%	5,294	1.4%
NE	4.0%	32,059	4.1%	14,187	1.8%
NV	4.1%	21,581	3.8%	9,110	1.6%
NH	6.3%	22,067	3.7%	16,604	2.8%
NJ	5.1%	137,546	3.6%	98,041	2.6%
NM	6.7%	42,213	6.5%	18,042	2.8%
NY	4.8%	246,865	3.0%	197,769	2.4%
NC	4.4%	177,889	5.4%	70,114	2.1%
ND	4.6%	18,044	5.7%	5,340	1.7%
OH	5.0%	171,971	3.4%	124,451	2.4%
OK	5.6%	87,012	6.1%	34,456	2.4%
OR	3.5%	22,791	1.6%	18,929	1.4%
PA	4.9%	185,529	3.3%	127,603	2.3%
RI	6.0%	21,963	4.4%	13,392	2.7%
SC	6.0%	106,292	6.6%	43,973	2.7%
SD	3.8%	13,818	4.0%	5,379	1.6%
TN	4.2%	61,529	2.7%	43,907	2.0%
TX	5.7%	409,364	5.2%	220,061	2.8%
UT	6.5%	50,344	6.7%	22,495	3.0%
VT	5.4%	6,966	2.4%	6,312	2.1%
VA	10.8%	365,973	12.1%	158,099	5.2%
WA	9.7%	159,184	6.9%	89,253	3.9%
WV	3.6%	12,398	1.8%	10,029	1.4%
WI	3.7%	46,673	1.9%	42,495	1.7%
WY	4.2%	9,548	4.3%	4,571	2.0%
US	6.0%	5,601,726	4.8%	3,295,000	2.8%

Source: Defense Budget Project, *Potential Impact of Defense Spending Reductions on the U.S. Economy and State Employment* (Washington, D.C.: Defense Budget Project, 1990), 11. Defense Budget Project calculations based on DOD and Bureau of Labor Statistics data.

*Includes defense industry, military active duty, and DOD civilian employment.

The impacts at the local level could be a different story as installations could be closed or reduced, or procurement from defense industries could be slowed down or cancelled completely. The actual budget items which are decreased will determine which communities will be affected. The level of reliance of a local economy on defense spending and the community's job creation potential will in turn determine the impact on a community or region. Force structure cuts would affect the basing structure in the country and the employment of active duty members and DOD civilians. Most active duty members probably would move away from the area, so they would not contribute to local unemployment directly, but the loss of payroll would have an indirect effect upon the community. DOD civilians who were employed at the base also might leave the area as there are DOD policies which provide for moving displaced federal defense workers to other installations. Individuals who choose not to relocate would contribute directly to local unemployment, and those that left, indirectly through loss of payroll. This loss of payroll would cause the multiplier effects discussed later. These local job losses would be moderated to the extent that dependents of those who left the area were employed. The level of business activity might initially decrease, but DOD studies show that most communities are able to recover fairly well from the closing of DOD installations.⁶

Cutbacks in procurement could have a more deleterious impact upon communities than force structure cuts as many defense contractors are very large employers in a given area. The success of individual firms in transferring workers to nondefense production as they market new products can work against large scale layoffs. There are also areas of high concentration for defense procurement. Southern California, Bos-

ton, St. Louis, Long Island, and other production locations could be most affected if major weapons systems are cancelled.⁷ Analysis by the Defense Budget Project and Office of Economic Adjustment indicates that even the most drastic cuts will affect relatively small proportions of workers in any particular state. Those states which are most dependent on DOD procurement spending—Connecticut, Virginia, Hawaii, and Alaska—and the District of Columbia would experience job losses of less than one-half of 1 percent of their work forces. Each of these states has over 4.5 percent of its work force in defense industries.⁸ Total estimated job losses for the five-year period with the 25-percent real decreases are approximately one million jobs in defense industries.⁹

These aggregate estimates still are unable to answer the question as to the impact on isolated communities or regions. Since actual cutbacks are unknown at this time, no definitive statements can be made, only speculations. Southern California has a high concentration of defense-related jobs. DRI/McGraw-Hill estimates that 120,000 jobs will be lost there by 1994, a 17-percent decline.¹⁰ Still, the size of the California economy should be able to absorb the displaced workers. Bath, Maine, may be an entirely different story where the shipbuilding industry could be severely affected by decreases in naval procurement.¹¹ Currently, the shipbuilding industry is supported entirely by DOD. This relatively isolated community may have great difficulty attracting alternative industry to an already depressed area. A factory in Lima, Ohio, is currently producing M1 tanks, an order which may be reduced or cancelled in the near future. This plant may be able to convert to some other production or its workers may be able to transition to other industries in the area, unlike workers in more isolated areas. Federal assistance

of some type may be necessary to ease the impact of decreased spending.

The Impact upon Defense Employment Groups

How will these decreases affect the various employment groups introduced earlier? For active duty personnel, the impact will depend on the actual levels of force reductions. Most observers agree that total cuts of active duty personnel probably will be in the range of 25 percent of those on active duty in 1990. The Department of Defense advocates slow, controlled cuts to avoid the involuntary separations which would have an adverse effect on morale and recruiting. However, Congress would like to see these reductions take place by fiscal year 1995 which requires end-strength cuts of approximately 100,000 per year. The fiscal year 1991 budget achieves this goal. If involuntary separations do take place, then separation pay of some kind may be necessary for enlisted personnel to ease the transition to the private sector. This has been provided for in the fiscal year 1991 budget. As mentioned previously, this would provide very little short-term budgetary savings. In terms of the entire economy, the magnitude of these involuntary cuts would be very small.

During the 1980s, DOD was recruiting nearly 300,000 military and civilian employees per year. After the changes in late 1989, that level dropped to 257,000 in FY 1990 and will be near that level in FY 1991, according to the January 1991 budget submission.¹² Fewer jobs are now open for those seeking employment in the all-volunteer force than there were throughout the 1980s. This conceivably could add to unemployment pressures, but the economy has already had one year to respond to this changed level for new recruits. These reduced recruitment levels will provide a sizable portion of the

annual reductions which must take place. Can those involuntarily separated also be absorbed? Again, the magnitude of these reductions will be very small compared to the overall economy. The United States has produced nearly two million new jobs each year throughout the 1980s, so the addition of approximately 50,000 trained personnel from the armed forces should have a very small effect upon the economy. The 100,000 reduction comes from 50,000 fewer recruits and a 50,000 reduction in current active duty forces.

DOD civilians will be affected in two ways. The first is through across-the-board reductions. Secretary of Defense Cheney has already begun these reductions by placing a freeze on hiring within DOD. This effort was soon modified, but the effect has been a reduction in civilian employees. Turnover of civilians within DOD is nearly 100,000 per year, so attrition should take care of most of these reductions. The other way in which civilian employment will be reduced is through the closing of installations. DOD civilians will have the opportunity to move to other installations, so as long as the rate of decrease can be absorbed by attrition, layoffs should not occur. Anticipated reductions for 1991 are .04 percent of national employment. Those areas with large concentrations of defense installations will be most severely affected. If reductions are evenly spread out over all installations, the percentage of jobs lost would be highest in the District of Columbia (.27 percent), Virginia (.27 percent), Alaska (.10 percent), and Hawaii (.18 percent).¹³ Actual base realignments would distribute these losses in a different fashion and would result in more concentration of unemployment at the local level in some areas and less in others.

Impacts among defense contractors also will depend on the magnitude of cuts and which weapons systems or programs

are cut. Total anticipated job losses over the five-year period are estimated to be approximately one million and would require reductions of about 250,000 in 1991.¹⁴ At the state level, these decreases are still manageable, but local effects are difficult to predict in the absence of knowledge about the actual cuts that will be made. There will be a considerable cushion to these drawdowns because of a \$254-billion backlog in procurement from previous years' authorizations.¹⁵ In addition, foreign sales to a heated up Middle East may provide production jobs for several years to come. This should give workers several years to contemplate their imminent move out of defense production. Defense production will not come to a halt. The level of spending in fiscal year 1995, even after a 25-percent real cut from 1990 levels, will still be \$227 billion, about the same as the postwar peacetime average.

The argument presented in this paper is that the level of cuts anticipated is not so great as to cause significant employment problems in the US economy. This is not to suggest that all individuals and communities will escape without severe problems. The magnitude and duration of unemployment for workers displaced by decreased defense expenditures will be dependent on the state of the economy. When reductions were initially contemplated in early 1990, the economy was still expanding, albeit at a slow rate. Recent indications in the latter months of 1990 indicate that the economy may be headed for a recession. The events in the Middle East and their impact upon energy prices may further exacerbate the problems in our economy. Consequently, earlier predictions that displaced workers could quickly transition to the private sector may have been premature. Thus the state of the economy is just as important to the impact of decreased spending as the displacement effects themselves. In addition, government fiscal and

monetary policy may affect employment opportunities in the economy, either positively or negatively. Table 8 shows the active duty, DOD civilian, and defense industry workers by state and which states are most susceptible under budget reductions.

Occupation and Industry Effects

THE final approach to the analysis of decreased defense expenditures is to look at the occupations and industries which will be most affected. Obviously, those individuals currently employed on active duty will see a shrinkage in available jobs, but their skills are widely diversified and they should be able to find positions in the private sector. DOD civilians also have widely diversified skills. It is only at the defense industry level that we may see concentrated job losses in particular occupations. Again, these will ultimately depend on which programs are curtailed or cancelled. As an example, the Institute of Electrical and Electronics Engineers predicts that 55,000 of the 240,000 employed in these occupations in defense work could lose their jobs by 1995.¹⁶ Table 9 provides data on occupations with over 10 percent of their employment in defense industries. These occupations would obviously be at risk during a period of decreased spending.

Just as there are particular occupations which are susceptible to reduced spending, there are certain industries which will also experience widespread dislocations. Table 10 shows the industries in the United States which have over 10 percent of their employment involved in defense production. There are 19 industries which have over 20 percent of their employment in defense work. Defense cuts could thus have a significant impact on particular industries. The stock markets have responded to this

TABLE 9

Defense-Related Employment in Occupations Having 10 Percent or More of All Jobs
Associated with Defense Expenditures, 1989

<i>Occupation</i>	<i>Defense-Related Employment</i>	<i>Defense Jobs as a % of Occupational Employment</i>
Aero-astronautic engineers	20,967	36.901
Electrical engineers	92,544	19.209
Industrial engineers	21,980	15.993
Mechanical engineers	40,034	14.811
Metallurgical engineers	3,388	16.333
All other engineers	58,727	18.893
All engineers	261,753	16.904
Physicists	4,561	23.596
Mathematicians and statisticians	5,157	10.913
All scientists	23,167	6.733
Electrical and electronic technicians	52,457	10.315
Mechanical engineering technicians	10,252	16.089
All engineering and science technicians	50,886	9.682
Computer systems analysts	39,627	9.695
All computer specialists	70,582	8.232
Aircraft mechanics	35,522	30.421
Marine mechanics and repairers	2,058	22.362
Machinists	35,397	9.870
Tool and die makers	19,220	11.665
Metalworking craft workers, nec*	9,349	14.002
Inspectors and testers	75,172	10.742
Shipfitters	6,835	53.435
All craft and related workers	701,614	5.882
Aircraft structure and surface assemblers	9,959	45.621
Electrical and electronic assemblers	78,330	17.845
Electromechanical equipment assemblers	9,225	15.213
Drill press and boring machine operators	6,904	11.325
Electroplaters	5,582	11.679
Grinding and abrading machine operators	9,394	10.531
Lathe machine operators	12,094	12.855
Machine tool operators, comb.	24,966	21.968
Machine tool operators, numerical control	9,767	5.837
Machine tool operators, tool room	18,425	10.341
Milling and planing machine operators	6,717	19.928
Power brake and bending machine operators	17	13.744
Winding operators, nec	5,444	15.082
All operatives	695,924	5.604

Source: Linda Levine, *Defense Spending Cuts and Employment Adjustments* (Washington, D.C.: Congressional Research Service, February 1990), 7-8.

*nec = not elsewhere classified

as the value of defense stocks decreased by 23 percent during a one-year period, while the market was at an all time high in early summer 1990.¹⁷ This raises another important question as to the government involvement in maintaining industrial presence in critical industries for mobilization purposes. This question is not addressed in this paper, but it must be addressed as our defense posture retracts.

There are many individuals who believe that decreased DOD spending will benefit the economy, both in the short and the long run. Noted economist Murray Weidenbaum of Washington University in St. Louis says, "Cutting back on defense need not hurt the economy"; and the former director of the Congressional Budget Office, Rudolph Penner, believes that "with generous monetary policy, cuts could be achieved without most Americans noticing." Others argue that the release of skilled employees and research dollars from the production of weapons will make the US more productive as these resources are used in the private sector.¹⁸ Another benefit often cited is that reduced spending can be translated into a reduced deficit, thus lowering interest rates as the government borrows less in financial markets. This author has little faith that the government will be able to reduce the deficit significantly. Budget Director Richard Darman forecasts deficit estimates for fiscal year 1991 to be \$293 billion.¹⁹ This figure is a far cry from the \$100 billion deficit for fiscal year 1990 which was forecasted in January 1990. Had we been at that level and further reduced defense spending, then this outcome might have been possible. Based on our political system and the current state of our economy, it probably will be a long time before there is a balanced budget

and lower interest rates because of a decrease in government borrowing.

Indirect Employment Effects

IN addition to the direct effects of DOD spending on employment, there will be secondary or indirect effects. These are the common multiplier effects of macro-economic theory. Many studies have been carried out on regional models with a fairly narrow range of values for this multiplier effect. These values are generally close to two. If the reader wants to use another number, then the results can be adjusted accordingly. As an example, a brigade was removed from Fort Carson, Colorado, in fiscal year 1990 with an annual payroll of \$60 million. Using this multiplier effect of two we could expect the removal of an additional \$60 million worth of jobs from the local economy of the Colorado Springs area. Any area which has a plant closing or significant layoffs will need to generate the same number of primary jobs lost just to stay at the same level of employment.

Economic Adjustment Legislation

GIVEN that there are many potentially affected communities throughout the US, it is not surprising that there have been efforts in Congress to enact legislation to assist communities. One must first ask the question, Are there already programs in place which can handle the displacement? It appears that the necessary programs are already in place for worker and community assistance to handle this situation, although slightly higher-funding levels may be necessary.²⁰ The fiscal year 1991 defense budget provided this additional funding.

The magnitude of the cutbacks and the rate at which they will take place are more

TABLE 10

Defense-Related Employment in Private Sector Industries Having 10 Percent or
More of All Jobs Associated with Defense Expenditures, 1989

Industry	Defense-Related Employment (in 000's)	Defense Jobs as a % of Industry Employment
Other Business Services, nec*	406.1	15.750
Radio and TV Communication Equipment	332.8	46.861
Complete Guided Missiles	136.0	88.543
Aircraft	105.5	43.255
Shipbuilding and Repairing	103.7	84.390
Aircraft Parts and Equipment, nec	95.6	44.050
Maintenance and Repair, Public	78.5	16.182
Ammunition, excluding Small Arms, nec	40.9	76.617
Aircraft Engines and Engine Parts	39.7	32.749
Electronic Components, nec	36.6	15.181
Engineering and Scientific Instruments	29.5	36.374
Miscellaneous Machinery	27.6	9.662
Other Ordnance and Accessories	24.2	68.466
Tanks and Tank Component	22.4	75.402
Semiconductors	18.2	10.362
Electric Measuring Instruments	15.7	16.471
Measuring and Control Instruments	15.2	10.025
Screw Machine Products	14.1	12.596
Small Arms	12.3	53.435
Plating and Polishing	11.1	14.448
Motors and Generators	9.6	10.573
Surgical and Medical Instruments	9.5	11.225
Industrial Trucks and Tractors	8.3	24.154
Electronic Coils, Transf., Other Inductors	7.4	25.088
Connectors, For Electronic Apparatus	6.6	18.902
Optical Instruments and Lenses	6.3	12.509
Resistors, For Elec. Applic.	6.3	26.706
Machine Tools, Metal Cutting	5.8	11.708
Aluminum Castings	5.5	10.190
Iron and Steel Forgings	5.2	15.180
Power Transmission Equipment	5.1	10.544
Electronic Capacitors	4.8	21.184
Explosives	4.2	40.409
Small Arms Ammunition	4.1	46.693
Steam Engines and Turbines	3.0	11.057
Nonferrous Forgings	2.8	29.992
Nonferrous Castings, nec	2.4	14.123
Metal Heat Treating	2.4	12.000
Copper Rolling and Drawing	2.4	10.607
Nonferrous Rolling and Drawing, nec	2.3	11.170
New Military Facilities	1.6	00.000
Wood and Radio Cabinets	1.5	16.891
Carbon and Graphite Products	1.0	9.642
Nonmetallic Mineral Products, nec	0.9	9.529
Brass, Bronze, and Copper Castings	1.4	10.218
Primary Copper	0.6	10.451
Production Of Petroleum and Coal, nec	0.2	9.802

Source: Linda Levine, *Defense Spending Cuts and Employment Adjustments* (Washington, D.C.: Congressional Research Service, February 1990), 4.

*nec = not elsewhere classified

manageable than in the past. The Office of Economic Adjustment has for over 25 years provided assistance to communities affected by base closures or new construction. The OEA works with community leaders to formulate flexible plans for the transition away from dependence on defense spending. This office has historically had a relatively small budget—\$2.5 million was proposed for fiscal year 1991—and the office may need larger resources in the future to handle more cases. Seven million dollars was actually provided in the fiscal year 1991 budget. The OEA is taking the first steps in planning for future dislocations by working with communities to diversify their local economies in anticipation of future changes.²¹ Communities are eligible for assistance if over 1 percent or 2,500 of their employed force is out of work due to changes in federal spending.

The Commerce Department also has the Economic Development Administration which can provide assistance to communities. Sudden and Severe Economic Dislocation (SSED) assistance had averaged \$17 million during the 1980s with current funding of \$12 million. This funding has been increased to \$50 million in this year's budget.

The federal government historically has provided worker assistance and training. However, the bulk of such training can be accomplished at the corporate, local, or state levels. Many companies have been anticipating significant cutbacks in DOD spending and have sought to trim their work forces or transition to civilian production. Many have provided employment assistance and retraining to displaced workers. Retraining and job search programs administered by state and local governments also provide considerable assistance to displaced workers.

The Economic Dislocation and Worker Assistance Act (EDWAA) and its Job Training Partnership Act (JTPA) provide

for retraining of workers affected by federal action or base closures. Additional funding over current levels would fulfill the need for assistance to dislocated active duty personnel, DOD civilians, and defense industry workers. There are currently three programs in place which can provide the necessary assistance to the three classes of employees. There is no requirement for additional legislation. Funding has been provided for \$150 million. Another area where Congress is contemplating action is in conversion of defense production facilities to private production. Representative Ted Weiss of New York has introduced legislation which would require defense companies to form management-labor committees to plan for conversion to avoid layoffs.²² Such legislation would interfere with the free operation of the marketplace and should not be attempted.

Do Defense Workers Deserve Special Consideration?

A philosophical point must now be raised. Is there any reason why the federal government should go out of its way and spend many millions of dollars to assist workers displaced by a changing economic environment? As an economy changes over time, workers are continuously displaced. Our manufacturing sector experienced a considerable shrinkage over the past decade. The increased defense expenditures during that period gave the defense manufacturing sector a reprieve. Now, they too are making the transition.

The response by Congress initially has been a race to see who can give away the most benefits possible because those employees in the defense sector are no longer in such high demand. External forces have affected their employment just as they do when weather affects the ski industry, environmental policy and

the spotted owl affect logging, and a dictator in Iraq affects world energy prices.

Political Considerations

THERE have always been outspoken opponents of the level of defense spending in the United States, especially during the 1980s when there was a relatively high level of peacetime spending. While that level of spending may have contributed to the ultimate changes in the Eastern bloc, both supporters and opponents of the recent levels of defense spending embraced the opportunity to cut defense spending as a quick way to achieve deficit reductions. Now the political realities have set in and Congress still must make some difficult choices as to how to cut defense spending. No matter what Congress does, people employed in the defense sector will be hurt, and those people live and vote in congressional districts. Budget negotiations in mid-October have led to a congressional and administration agreement to authorize \$288 billion for defense in fiscal year 1991. This is above the levels pushed earlier by both the House and Senate. Force structure reductions will result in basing realignments and the closing of installations, which will decrease active duty and DOD civilian employment. Cuts in procurement and other defense purchases will directly affect the employment of the 3.4-million defense industry employees.

Cutbacks in active duty forces, if accomplished at the appropriate rate, can be done in such a way that involuntary separations are not required. This also provides a better opportunity for those workers to find jobs in the private sector. However, the current discussions of force reductions may require vast numbers of involuntary separations. Consequently, Congress has passed legislation which will provide separation pay to enlisted

members. This has never been provided before, but would lessen the pain of these separations. There will be little short-term budgetary savings as separation benefits will be paid for with the compensation saved from those separated. Current legislation provides 10 percent of base pay for each year of service for those involuntarily separated. Job training programs are also being considered. One aspect of active duty force reductions which Congress may find particularly appealing is that these reductions would affect voters of all districts, with no district receiving a disproportionate share of the reductions. However, to achieve force reductions of the magnitude anticipated, DOD will need to close some installations. This is always politically difficult and it remains to be seen whether Congress will be willing to make these difficult choices in order to achieve the 25-percent real reductions which are anticipated. It is this author's opinion that Congress generally will not support programs which create instant unemployment. Potential transfer of forces to reserve units may thus be available as political plums to lessen local impacts.

Changes in basing requirements would have two effects. The first is that many permanent members of the community would lose their jobs as civilian employment by DOD is reduced. One would expect that most of the military personnel would be transferred from the area or would leave voluntarily since the government pays for their moving expenses. Other labor in the local area may not be nearly as mobile, although DOD policies would provide for jobs at other installations. Secondary effects in the community would also lead to further reductions in employment. While many communities initially fear the loss of DOD installations, there is much evidence that these communities are able to transition to an economy which does not rely on DOD spending or payrolls.²³ Reductions

of this type are very hard for Congress to accept, as they create instant unemployment within specific districts. These types of changes would generally be associated with force reductions, but Congress might try to keep installations open at lower, less-efficient levels.

The third type of change or reduction which Congress will face is the reduction in spending for goods and services, especially acquisition of major weapon systems. There will be many advocates for these systems in the private sector and the services themselves as they again will affect specific districts or pet projects. Based on historical evidence, DOD and Congress may avoid the hard choices of cancelling specific systems. The politically acceptable method is to reduce the scope and stretch out individual programs. Secretary Cheney has already announced reductions and stretch-outs for several major acquisition programs

with little opposition from Congress. The costs of such decisions are high, however; the cost is spread out over all taxpayers, while benefits accrue to a few.

Ideally, decisions about future force structure and appropriate weapon systems will be determined by the missions that must be accomplished in the post-cold war period. However, as can be seen by this discussion, the efforts of parochial interests of the services and the political decision-making process may lead to inefficiencies in achieving this goal. The federal budget, and the defense portion in particular, is often used as an instrument for social policy and change, as well as for providing jobs throughout the country. Specifically, bases that should be closed may remain open and weapon systems may be purchased that are unnecessary, or they may be procured in an inefficient manner.

Notes

1. The figures in table 5 include Department of Energy expenditures for nuclear weapons. DOD spending to GNP ratios would be about two-tenths lower than these figures.

2. Robert M. Rauner, *Defense Budget Reductions and Regional Economic Adjustment, The U.S. Experience* (Washington, D.C.: Department of Defense, Office of Economic Adjustment, 1990), 11.

3. Defense Budget Project, *Potential Impact of Defense Spending Reductions on the U.S. Economy and State Employment* (Washington, D.C.: Government Printing Office, 1990), 19.

4. Ibid.

5. See Ibid., 12-21, for state-by-state details in this simulation.

6. Joseph V. Cartwright, *Potential Work Force Dislocations and U.S. Defense Budget Cuts: An Illustration* (Washington, D.C.: Department of Defense, Office of Economic Adjustment, 1990), 1-2.

7. Robert Guskind, "Risks by the Region," *National Journal*, 13 January 1990, 62.

8. Defense Budget Project, *Potential Impact*, 6.

9. Ibid., 7.

10. James E. Ellis, "Who Pays for Peace?" *Business Week*, 2 July 1990, 66.

11. G. Wayne Glass, Congressional Budget Office, interview by author, Washington, D.C., 25 September 1990.

12. Department of Defense, *Annual Report to the President and the Congress* (Washington, D.C.: Government Printing Office, 1990), 20.

13. Defense Budget Project, *Potential Impact*, 8.

14. Ellis, 64; Defense Budget Project, *Potential Impact*, 7.

15. Gordon Adams, Stephen A. Cain, and Conrad P. Schmidt, *The Defense Budget and the Economy: What the Transition Will Look Like* (Washington, D.C.: Defense Budget Project, 1990), 4.

16. Ellis, 66.

17. Ibid.

18. John Schwartz, "Does Peace Have a Price?" *Newsweek*, 4 December 1989, 60.

19. Tom Raum, "Despite Fiscal Surgery, Red Ink to Gush in 1991," *Gazette Telegraph* (Colorado Springs, Colo., 1 October 1990), sec. A, page 3.

20. Rauner, 25.

21. Joseph V. Cartwright, Office of Economic Adjustment, interview by author, Washington, D.C., 24 September 1990.

22. Kirk Victor, "Worries for Workers," *National Journal*, 13 January 1990, 60.

23. Rauner, 26.

Chapter 6

Conclusion

SEVERAL generalizations can be made about the anticipated 25-percent decrease in defense spending over the next five years.

1. The magnitude and rate of reduction will be small enough that the US economy should be able to absorb displaced workers from the three employment groups: active duty military, DOD civilians, and defense industry workers. Defense spending still will be at a level near the postwar average even after a 25-percent cut, employing large numbers of people in the public and private sectors.

2. Over one-third of anticipated cuts have already taken place since the peak spending of fiscal year 1985.

3. The backlog of previously authorized expenditures will keep outlays from falling as fast as authorizations. Thus, the employment effects for defense industries will be modified, allowing for worker transitions to civilian production within the same firm or additional time for retraining.

4. At the state level, if defense cuts take place proportionally across all states and in both force structure and procurement, then decreases in the employment groups

will amount to less than 1 percent of state employment for all states. Actual cuts may have greater impacts upon those states particularly dependent on DOD spending.

5. Current programs should be sufficient in scope to provide the necessary individual or community assistance. The existing programs may require additional funding, but not at the levels proposed by Congress. Economic conversion legislation would interfere with the operation of the free market.

6. The state of the economy will have a significant impact on the severity of worker dislocation. Current forecasts of a recession by many economists may make this a particularly bad time to reduce federal spending as other jobs may not be readily available for displaced workers.

7. If decreased DOD spending can be used for deficit reduction, then it is possible that the economy may actually improve through the stimulative effect of decreased interest rates. However, in light of recent forecasts and the inherent political difficulties associated with deficit reduction, this outcome is in doubt.

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APPENDIX

Employment Effects of the Bush Budget and House Scenario II: 1989-1995 Reserve and National Guard

	Base Year 1989	Job Loss 1990	Job Loss 1991	1991 Job Loss as % of 1989 State Employ.	Job Loss 1992	Job Loss 1993	Job Loss 1994	Job Loss 1995
AL	46,623	(606)	(1,196)	-0.07%	(1,165)	(1,135)	(1,106)	(1,077)
AK	6,149	(80)	(158)	-0.07%	(154)	(150)	(146)	(142)
AZ	22,041	(287)	(566)	-0.03%	(551)	(537)	(523)	(509)
AR	22,809	(297)	(585)	-0.06%	(570)	(555)	(541)	(527)
CA	130,057	(1,691)	(3,338)	-0.02%	(3,251)	(3,166)	(3,084)	(3,004)
CO	20,541	(267)	(527)	-0.03%	(513)	(500)	(487)	(474)
CT	15,369	(200)	(394)	-0.02%	(384)	(374)	(364)	(355)
DE	8,216	(107)	(211)	-0.06%	(205)	(200)	(195)	(190)
DC	12,793	(166)	(328)	-0.11%	(320)	(311)	(303)	(295)
FL	62,547	(813)	(1,605)	-0.03%	(1,563)	(1,523)	(1,483)	(1,445)
GA	44,160	(574)	(1,133)	-0.04%	(1,104)	(1,075)	(1,047)	(1,020)
HI	12,616	(164)	(324)	-0.06%	(315)	(307)	(299)	(291)
ID	8,260	(107)	(212)	-0.05%	(206)	(201)	(196)	(191)
IL	57,035	(741)	(1,464)	-0.03%	(1,426)	(1,389)	(1,352)	(1,317)
IN	38,802	(504)	(996)	-0.04%	(970)	(945)	(920)	(896)
IA	21,586	(281)	(554)	-0.04%	(540)	(526)	(512)	(499)
KS	23,698	(308)	(608)	-0.05%	(592)	(577)	(562)	(547)
KY	24,589	(320)	(631)	-0.04%	(615)	(599)	(583)	(568)
LA	36,209	(471)	(929)	-0.05%	(905)	(882)	(859)	(836)
ME	10,396	(135)	(267)	-0.05%	(260)	(253)	(247)	(240)
MD	36,207	(471)	(929)	-0.04%	(905)	(881)	(859)	(836)
MA	37,999	(494)	(975)	-0.03%	(950)	(925)	(901)	(878)
MI	46,364	(603)	(1,190)	-0.03%	(1,159)	(1,129)	(1,099)	(1,071)
MN	32,415	(421)	(832)	-0.04%	(810)	(789)	(769)	(749)
MS	25,955	(337)	(666)	-0.06%	(649)	(632)	(615)	(599)
MO	40,004	(520)	(1,027)	-0.04%	(1,000)	(974)	(949)	(924)
MT	8,015	(104)	(206)	-0.05%	(200)	(195)	(190)	(185)
NE	12,980	(169)	(333)	-0.04%	(324)	(316)	(308)	(300)
NV	6,447	(84)	(165)	-0.03%	(161)	(157)	(153)	(149)
NH	7,522	(98)	(193)	-0.03%	(188)	(183)	(178)	(174)
NJ	35,822	(466)	(919)	-0.02%	(895)	(872)	(849)	(827)
NM	11,523	(150)	(296)	-0.05%	(288)	(281)	(273)	(266)
NY	84,748	(1,102)	(2,175)	-0.03%	(2,118)	(2,063)	(2,010)	(1,957)
NC	39,596	(515)	(1,016)	-0.03%	(990)	(964)	(939)	(914)
ND	7,797	(101)	(200)	-0.06%	(195)	(190)	(185)	(180)
OH	60,424	(786)	(1,551)	-0.03%	(1,510)	(1,471)	(1,433)	(1,396)
OK	25,807	(335)	(662)	-0.05%	(645)	(628)	(612)	(596)
OR	19,928	(259)	(511)	-0.04%	(498)	(485)	(473)	(460)
PA	73,773	(959)	(1,893)	-0.03%	(1,844)	(1,796)	(1,749)	(1,704)
RI	8,631	(112)	(221)	-0.04%	(216)	(210)	(205)	(199)
SC	33,950	(441)	(871)	-0.05%	(849)	(827)	(805)	(784)
SD	7,455	(97)	(191)	-0.06%	(186)	(181)	(177)	(172)
TN	38,197	(497)	(980)	-0.04%	(955)	(930)	(906)	(882)
TX	92,693	(1,205)	(2,379)	-0.03%	(2,317)	(2,257)	(2,198)	(2,141)
UT	17,288	(225)	(444)	-0.06%	(432)	(421)	(410)	(399)
VT	6,016	(78)	(154)	-0.05%	(150)	(146)	(143)	(139)
VA	48,138	(626)	(1,235)	-0.04%	(1,203)	(1,172)	(1,141)	(1,112)
WA	37,264	(484)	(956)	-0.04%	(931)	(907)	(884)	(861)
WV	13,400	(174)	(344)	-0.05%	(335)	(326)	(318)	(309)
WI	33,181	(431)	(851)	-0.03%	(829)	(808)	(787)	(766)
WY	3,924	(51)	(101)	-0.04%	(98)	(96)	(93)	(91)
US	1,577,959	(20,513)	(40,494)	-0.03%	(39,441)	(38,415)	(37,416)	(36,444)

Source: Defense Budget Project, *Potential Impact of Defense Spending Reductions on the U.S. Economy and State Employment* (Washington, D.C.: Defense Budget Project, 1990), 28.